

# Environmental Assessment Program

Contact: **Bill Backous**, Program Manager, (360) 407-6699

---

## Program Mission

To measure and assess environmental conditions in Washington State.

---

## Environmental Threats

Environmental threats include both point and nonpoint pollution sources and range from conventional pollutants, such as fecal coliform bacteria, nutrients, and temperature, to toxic contaminants and invasive aquatic weeds. Most monitoring and scientific investigation efforts focus on threats to water or sediment quality, while many directed environmental studies are conducted in support of clients in other Department of Ecology programs.

The focus of these activities is on objectively assessing existing environmental conditions. The agency frequently identifies threats or evaluates cumulative or combined effects stemming from the entire spectrum of environmental threats. Consequently, relevant and useful information is provided to the agency and other resource management agencies.

---

## Authorizing Laws

- *Federal Clean Water Act*
- *Chapter 90.48 RCW, Water Pollution Control*
- *Chapter 90.71 RCW, Puget Sound Water Quality Protection*
- *Chapter 70.105D RCW, Model Toxics Control Act*
- *Chapter 43.21A RCW, Department of Ecology*
- *Chapter 70.119A.080 RCW, Public Water Systems – Penalties and Compliance*

---

## Constituents/Interested Parties

- *Federal and local governments*
- *State agencies*
- *Tribes*
- *Businesses*
- *Environmental organizations*
- *General public*
- *Internal clients*

---

## Major Activities and Results

### *Improve Quality of Data Used for Environmental Decision Making*

Sound environmental policy and regulatory decisions can only be made if accurate, reliable, and timely data are available to inform decisions. The agency goal is to ensure the reliability and integrity of data used by staff and others. A quality assurance officer provides guidance and training on developing Quality Assurance Project Plans, reviews project proposals, and consults on sampling design requirements and interpretation of results. This quality assurance function is required by the Environmental Protection Agency for entities, such as the Department of Ecology, that receive funding for work involving environmental data. In addition, the agency scientists, modelers, statisticians, chemists, and other specialists interpret technical data, review grantee monitoring plans, and supply information for crucial policy questions in support of agency mandates. Data collection supports all major state and federal environmental laws.

### *Result*

Environmental decisions are made based upon accurate, reliable, and timely data.

- Environmental Assessment Program monitoring plans are adequately designed to collect accurate scientific data.
- Department of Ecology grantee monitoring plans are adequately designed to collect accurate scientific data.

### *Measure Contaminants in the Environment by Performing Laboratory Analyses*

The Manchester Environmental Laboratory is a full-service environmental chemistry laboratory operated jointly by the U.S. Environmental Protection Agency and the Department of Ecology. The laboratory provides technical, analytical, and sampling support for chemistry and microbiology for multiple programs in the agency. The lab supports work conducted under mandates such as the Federal Clean Water Act, Water Pollution Control Act, Puget Sound Water Quality Protection Act, Model Toxics Control Act, and the Clean Air Act.

### ***Result***

Manchester Environmental Laboratory accurately measures and reports contaminant levels in submitted samples.

- Achieve 100% acceptable results of “blind” samples analyzed by the agency’s lab.

### ***Ensure Environmental Laboratories Can Provide Quality Data***

The agency is charged with the responsibility to certify laboratories that conduct tests or submit data to the agency. As a result, the Department of Ecology developed and manages an accreditation program to accredit environmental laboratories for analyses in all typical environmental matrices, now including drinking water.

The drinking water mission was transferred to Ecology under an April 2002 Memorandum of Agreement between the Department of Ecology and the Department of Health. Accreditation helps ensure that environmental laboratories have the demonstrated capability to provide accurate and defensible data. The agency's lab accreditation program is the primary source of lab performance monitoring for the 480 labs in the accreditation program. (Authorizing laws - 43.21A.445 and 70.119A.080 RCW)

### ***Result***

Environmental laboratories submitting data to the Department of Ecology and the Department of Health have the demonstrated capability to provide accurate and defensible data.

- Achieve 98% acceptable results of “blind” samples analyzed at accredited labs.



***Conducting quality assurance of laboratory analysis at the agency’s environmental laboratory in Manchester***

### ***Conduct Environmental Studies for Pollution Source Identification and Control***

The agency conducts pollution studies to address known or suspected problems at individual sites

or across regional areas. These studies support agency efforts under the Federal Clean Water Act, Water Pollution Control Act, and Model Toxics Control Act. The directed studies span the range from water quality sampling, such as for bacteria or dissolved oxygen, to more complex analyses for toxic chemicals, such as dioxins in fish tissues or pesticides in groundwater. Many of the studies are water cleanup studies, which calculate the "total maximum daily load" (TMDL) of a pollutant a water body can absorb without causing violations of water quality standards. Study results are published in scientific reports used for regulatory decision making, formulating policy, and protecting and enhancing environmental health.

### ***Result***

Timely, peer-reviewed scientific studies on pollution problems enable agency managers to make sound environmental decisions.

- Polluted stream segments, lakes and bays are evaluated in water cleanup reports.



***Downloading data from a stream gage***

### ***Monitor and Assess the Quality of State Waters and Measure Stream Flows Statewide***

The agency has established a statewide environmental monitoring network to assess the current status of state waters, identify threatened or impaired waters, and evaluate changes/trends in water quality over time. This network includes sampling stations in rivers, streams, and marine waters (Puget Sound and coastal estuaries).

A significant part of the network was developed under the direction of Chapter 90.71 RCW - Puget Sound Water Quality Protection, which ensured implementation of the Puget Sound Ambient Monitoring Program. The agency also measures and evaluates stream flows in salmon-critical basins and key watersheds statewide, and makes

near real-time information available to the public via the agency's Web site.

### **Result**

The health of rivers, streams, lakes, and marine estuaries and sediments are assessed statewide.

- Using an efficient mix of monitoring designs and programs, the agency will reliably assess and report on the health of freshwater rivers and streams, lakes, marine and estuarine waters, and marine sediments statewide.
- The agency will reliably evaluate stream flows in salmon-critical basins and key watersheds statewide, compare actual flows to instream flow targets, and make near real-time stream flow data available to the public via the agency's Web site.

---

## **Major Issues**

### ***Stability of Environmental Monitoring Programs***

Environmental monitoring is an important agency activity. In recent years, new requirements for watershed planning and salmon recovery have increased the demand for reliable water quality and stream flow data throughout the state. However, the stability of several of the agency's monitoring programs is in jeopardy. The cumulative effects of budget cuts and escalating costs for services necessary to carry out monitoring have necessitated reductions in some of the agency's core monitoring efforts.

Marine sediment monitoring, which had been particularly hard hit, received additional funding in the 05-07 biennium, however, funding for marine water column sampling remains inadequate. The problem of shrinking budgets has been exacerbated by increased costs for chartered marine flights, marine vessel rental, and contracted analytical services.



***Stream gauge to monitor stream flow***

The agency is also facing budget problems in

stream flow monitoring. Although a budget add was received for the 05-07 biennium to replace most of the "one-time" funding from external sources (Salmon Recovery Funding Board, National Fish & Wildlife Foundation) to install stream gauges in priority watersheds, funding was not provided to continue grants to local entities to assist in maintaining and operating the gauges.

During the 05-07 biennium, the agency must report its progress toward implementing priority activities in Washington's Comprehensive Monitoring Strategy, and also must submit to the Environmental Protection Agency a statewide strategy for meeting all Clean Water Act monitoring requirements. Both efforts are designed to help determine the funding and priorities for core monitoring programs. Investments in monitoring are important to assure accurate data and measures of program performance and accountability are available to support management actions and regulatory decisions.

### ***Maintaining Investment in Water Cleanup Plans***

Section 303d of the federal Clean Water Act requires the state to develop water cleanup plans (also known as TMDLs – Total Maximum Daily Loads) for water bodies that fail to meet water quality standards. As part of a lawsuit agreement, a Memorandum of Agreement with the Environmental Protection Agency requires the Department of Ecology to develop nearly 1,500 water cleanup plans by 2013.

In recent years, the agency has been successful in obtaining federal funds to develop water cleanup plans. However, budget pressures at both the state and federal levels threaten the agency's ability to maintain the water cleanup schedule. Federal budget reductions for the 05-07 Biennium reduced funding for these plans by more than \$170,000. In addition, the agency is faced with conducting a number of complicated marine TMDLs, which are expected to be considerably more costly than other TMDL efforts.

In the face of these budget cuts, the agency needs to continue seeking out avenues of support for this program. If the state is unable to meet the terms of the lawsuit agreement, it is possible the federal government may pull back millions of dollars of federal funds in order to implement its own water cleanup program. Under a federally-administered

program, the state would lose much control over permitting decisions involving point sources of pollution, which would pose hardships on municipalities and industries.

***Monitoring Coordination and Integration***

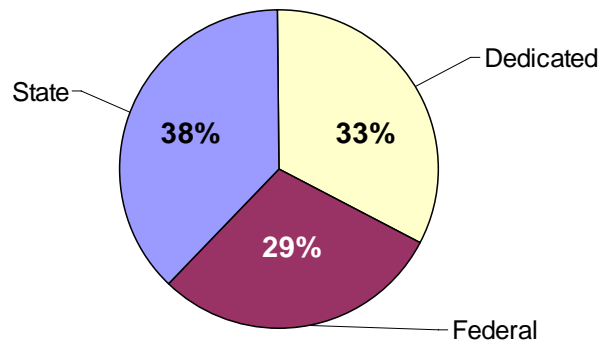
The agency's monitoring and environmental study efforts must be effectively coordinated at the state, regional, national, and local levels. Actions by the Washington State Legislature (SSB 5637, 2002) and the Governor's Office (Executive Order 04-03, 2004) have resulted in the development of a Statewide Comprehensive Monitoring Strategy (CMS) and the creation of the Governor's Monitoring Forum. The Forum, along with other entities such as the Puget Sound Ambient Monitoring Program and the Pacific Northwest Aquatic Monitoring Partnership, bring local, state, tribal, and federal agencies together to coordinate monitoring efforts, increase efficiency and effectiveness of individual monitoring programs, and identify and target the most important data gaps.

## Environmental Assessment Program Budget

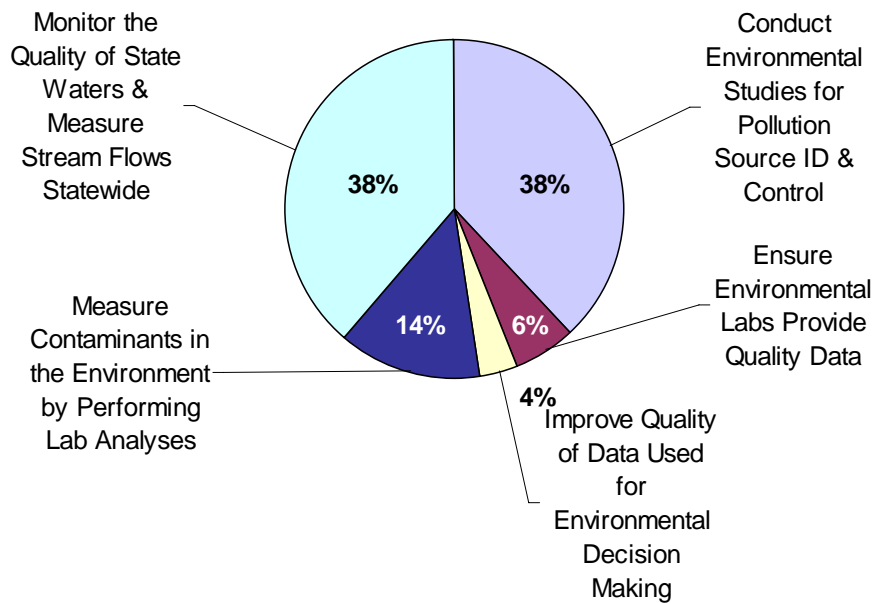
Budget = \$25 million; FTEs = 125.6

State	(\$)	Amount	Sources	Uses
General Fund – State		9,562,110	Multiple	Water quality monitoring, marine sediment monitoring, streamflow monitoring, technical assistance, monitoring of nonpoint source controls, water cleanup studies, laboratory accreditation
<b>Federal</b>				
General Fund – Federal		7,270,571	Federal grants	Water quality monitoring, marine sediment monitoring, watershed cleanup studies, quality assurance
<b>Dedicated Funds</b>				
General Fund – Private/Local		304,072	Agreements with counties and cities	Water quality studies, laboratory analytical work
Water Quality Account		969,933	Excise taxes on cigarettes and other tobacco products, sales tax transfer, loan repayments, interest payments, and state general fund transfer	Streamflow monitoring
State Toxics Control		2,969,951	Hazardous substance tax, remedial actions, and penalties recovered	Marine sediment monitoring, groundwater investigations, water cleanup studies, toxics monitoring
Water Quality Permit		3,819,510	Fees on wastewater discharge permits	Groundwater investigations, water cleanup studies, watershed studies, compliance monitoring
Freshwater Aquatic Weeds		193,051	Fees on boat trailers	Technical assistance, monitoring
<b>TOTAL</b>		<b>\$25,089,198</b>		

## Environmental Assessment Program Dollars by Fund Source



## Environmental Assessment Program Dollars by Activity



Activity	Dollars	FTEs
Conduct Environmental Studies for Pollution Source Identification and Control	\$9,522,278	42.0
Ensure Environmental Laboratories Provide Quality Data	\$1,500,096	8.1
Improve Quality of Data Used for Environmental Decision Making	\$928,291	4.4
Measure Contaminants in the Environment by Performing Laboratory Analyses	\$3,416,462	29.8
Monitor the Quality of State Waters and Measure Stream Flows Statewide	\$9,722,071	41.3
<b>Total Environmental Assessment Program</b>	<b>\$25,089,198</b>	<b>125.6</b>